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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/736,715

12/16/2003

Goro Komatsu

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3558

21828

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05/04/2005

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EXAMINER

LAI, ANNE VIET NGA

ART UNIT

PAPER NUMBER

2636

DATE MAILED: 05/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/736,715

Applicant(s)

KOMATSU ET AL.

Examiner

Anne V. Lai

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 October 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 16 October 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 7-9 are rejected under 35 U.S.C. 102(b) as being anticipated by **Ko** [JP200119176].

In claim 7, **Ko** discloses a system for monitoring pressure of tires mounted on a vehicle, comprising:

sensor units 1 installed at each of the tires mounted on a vehicle for sensing the tire pressure and producing an output representing air pressure of the tire and transmitting the output via a first transmitting antenna 14 (figs. 1, 3, 4)

a monitoring unit 2 having a first receiving antenna 26, a second transmitting antenna 24, and a first alarm section 27 (figs. 3, 5); the monitoring unit receiving the transmitted output of the pressure sensor through the first receiving antenna, comparing the output with a predetermined value to determine whether the tire pressure is proper, and informing a result of the determination to an operator by the first alarm section;

a portable terminal device 3 to be carried by the operator 92 when the operator is outside the vehicle and having a second receiving antenna 36 and a second alarm section 37; wherein the monitoring unit transmits the result of the determination to the portable terminal device through the second transmitting antenna 24 and the second

receiving antenna 36 to inform the result of the determination to the operator by the second alarm section 37 (figs. 3, 6);

In claim 8, **Ko** discloses the portable terminal 3 includes a third transmitting antenna 34 and a button 38 for the operator sending instruction to the monitoring unit (fig. 3).

In claim 9, **Ko** discloses the second alarm is a warning lamp (37, fig. 6).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-3 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ichinose** [US. 2004/0095231] in view of **Corgan et al** [US. 4,263,579].

In claim 1, **Ichinose** discloses a system for monitoring pressure of tires mounted on a vehicle, comprising:

a sensor unit 10 installed at each of the tires mounted on a vehicle and including at least a pressure sensor 11 that produces an output representing air pressure of the tire and a transmitting antenna 15 that transmits the output of the pressure sensor (fig. 2)

a monitoring unit having a receiving antenna 21, and an alarm 30, the monitoring unit receiving the output of the transmitted pressure sensor through the receiving

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antenna, comparing the output with a predetermined value to determine whether the tire pressure is proper, and informing a result of the determination to an operator by the alarm section (fig. 1).

Ichinose omits the detail of power supply to the monitoring system. **Corgan et al** teach a tire pressure monitoring system powered by the battery mounted on the vehicle and the alarm can be powered through an ignition switch or through an operating switch for power saving purpose (manually operated switch; col. 4, lines 5-17; col. 5, lines 57-62). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to implement an operating switch bypassing the ignition switch for the convenient of the user turning on the monitoring unit at will for power saving purpose.

In claims 2-3, **Ichinose** (fig. 1) and **Corgan et al** (40, fig. 2) disclose warning lamp and display panel, although coloration is not disclosed, it would have been obvious to one having ordinary skill in the art the use of colored light (LED) is well known in indicating device for effectively indicating particular status by changing colored lights.

5. Claims 4-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ichinose** and **Corgan et al** in view of **Flowerday et al** [US. 2003/0214395].

In claim 4-5, **Ichinose** and **Corgan et al** do not disclose indication of increase/decrease direction of tire pressure adjustment. **Flowerday et al** teach a display showing arrow icon indicating direction of tire pressure adjustment (figs. 14A-B; [0058]). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to implement the indication of increase/decrease direction of

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tire pressure adjustment for the convenient of the vehicle operator quickly visualize the need of tire pressure adjustment.

6. Claim 6 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Ichinose** and **Corgan et al** in view of **Walenty et al** [US. 6,877,371].

In claim 6, **Ichinose** and **Corgan et al** do not specify the predetermined value is set based on a recommended cold pressure. **Valenty et al** teach a method and apparatus for detecting tire pressure comprising comparing the tire pressure output with a vehicle manufacturer's recommended cold tire pressure (col. 12, lines 19-25). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to compare the pressure output with a standard value for keeping the result conformed to a norm applied to all other vehicles.

7. Claims 10 and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ko** in view of **Achterholt** [US. 6,476,712].

In claim 10, **Ko** discloses the second alarm is a display panel however the coloration is omitted; **Achterholt** teaches a portable color display terminal for tire pressure (figs. 1-3; col. 6, lines 24-30). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to implement the color display panel as taught by **Achterholt** to **Ko** display panel for the convenient of the user easily perceiving the status of the tire pressure.

In claim 13, **Achterholt** teaches the portable terminal device is a remote keyless entry device (col. 11, lines 14-16).

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8. Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Ko** in view of **Flowerday et al.**

In claims 11 and 12, **Ko** does not specify the monitoring unit informs the operator with indication of increase/decrease direction of tire pressure adjustment. **Flowerday et al** teach a display showing arrow icon indicating direction of tire pressure adjustment (figs. 14A-B; [0058]). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to implement the indication of increase/decrease direction of tire pressure adjustment for the convenient of the vehicle operator quickly visualize the need of tire pressure adjustment.

9. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Ko**.

In claim 14, although **Ko** does not specifically pointed out the frequency of antennas is set to a same value, it would have been obvious for the frequency of the antennas is preferred to be the same for facilitate communication between them.

10. Claim 15 is rejected under 35 U.S.C. 103(a) as being unpatentable over **Ko** in view of **Valenty et al** [US. 6,877,371].

In claim 15, **Ko** does not specify the predetermined value is set based on a recommended cold pressure. **Valenty et al** teach a method and apparatus for detecting tire pressure comprising comparing the tire pressure output with a cold tire pressure recommended by vehicle manufacturers (col. 12, lines 19-25). It would have been obvious to one having ordinary skill in the art at the time of the invention was made to compare the pressure output with a standard value for keeping the result conformed to a norm applied to all other vehicles.

Conclusion

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Fujii discloses a keyless entry device having tire pressure monitoring function.

[US. 2003/0046993]

Juzswik et al disclose a tire monitoring system with pressure gauge operating mode for indicating when air pressure within a tire is within a predetermined pressure range. [US. 6,612,165]

Mendez et al disclose a method and apparatus for shared keyless entry control.


[US. 5,463,374]

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anne V. Lai whose telephone number is 571-272-2974. The examiner can normally be reached on 8:00 am to 5:30 pm, Monday to Thursday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hofsass Jeffery can be reached on 571-272-2981. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).


A. V. Lai
April 29, 2005


JEFFERY HOFSASS
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600